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| 10/518,437 | 09/19/2005 | Mikio Fukumura | SAEG120.002APC | 7861 |

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| EXAMINER |
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LEYSON, JOSEPH S

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| ART UNIT | PAPER NUMBER |
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1722

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10/05/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| Office Action Summary | Application No. 10/518,437 | Applicant(s) FUKUMURA | |
| | Examiner Joseph Leyson | Art Unit 1722 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 6-15 is/are pending in the application.
- 4a) Of the above claim(s) 9-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6-8 and 12-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 9-11 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 31, 2006.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by WO 99/65666.

WO 99/65666 teaches a foam forming die comprising: an inlet 2 for inserting a molten resin containing a foaming agent from an extruder, a hollow portion formed so as to permit the molten resin inserted to spread in the widthwise direction (i.e., fig. 2), and a channel for discharging the molten resin that has passed through the hollow portion and is spread in the widthwise direction (i.e., figs. 1 and 2), wherein one end of the channel is narrowed by two rotatable bodies 3 to form a discharge portion, the two rotatable bodies having an outer periphery substantially in the form of a true circle in cross section and being disposed in parallel with their axes extending in the widthwise direction (i.e., figs. 2), and the discharge portion for discharging the molten resin being

formed by a gap between the rotatable bodies, and the downstream side of the discharge portion is configured in such a manner that when the molten resin discharged from the discharged portion is released, the pressure is reduced, resulting in expansion of the molten resin (i.e., fig. 1), and the two rotatable bodies 3, whose temperatures can be controlled by a temperature regulator 7, can rotate in the molten resin discharging direction (i.e., fig. 1).

4. Claims 1, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Mendel (US 5,401,454).

Mendel (US 5,401,454) teaches a foam (i.e., col. 4, lines 54-57) forming die comprising: an inlet 36 for inserting a molten resin containing a foaming agent from an extruder, a hollow portion 37 formed so as to permit the molten resin inserted to spread in the widthwise direction, and a channel (defined by elements 39, 40, 42, 43) for discharging the molten resin that has passed through the hollow portion and is spread in the widthwise direction, wherein one end of the channel is narrowed by two rotatable bodies 63, 64 to form a discharge portion, the two rotatable bodies 63, 64 having an outer periphery substantially in the form of a true circle in cross section and being disposed in parallel with their axes extending in the widthwise direction (i.e., figs. 1 and 2), and the discharge portion for discharging the molten resin being formed by a gap between the rotatable bodies 63, 64, and the downstream side of the discharge portion is configured in such a manner that when the molten resin discharged from the discharged portion is released, the pressure is reduced, resulting in expansion of the molten resin (i.e., fig. 2), and the two rotatable bodies 63, 64, whose temperatures can

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be controlled by a temperature regulator (i.e., col. 5, lines 29-33), can rotate in the molten resin discharging direction (i.e., fig. 2), a rotation adjusting means for increasing or decreasing the speed of rotation or torque of the rotatable body bodies, (i.e., col. 5, lines 11-25; "single point adjustment"), wherein the rotatable bodies are provided with projections extending from an outer peripheral surface thereof diametrically outward over the entire width (i.e., fig. 16), a forming device (i.e., figs. 2, 11) for forming a foam-formed article discharged from the discharge portion into a predetermined shape at the downstream side of the discharge portion wherein the forming device comprises a channel through which the molten resin discharged from the discharge portion passes, the channel being higher than the discharge portion (i.e., col. 4, lines 38-53; col. 6, lines 40-49), wherein the forming device comprises a pair of plate-like forming members 45, 46 and the channel being formed between the two forming members (fig. 2), and wherein the forming device is provided with a pair of roller units 130, 131 and the channel being formed between the two roller units (fig. 11).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over either WO 99/65666 or Mendel (US 5,401,454).

WO 99/65666 and Mendel (US 5,401,454) each respectively disclose the die substantially as claimed, as mentioned above, except for the dimensional requirements of the instant claim.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the die of either WO 99/65666 or Mendel (US 5,401,454) to have the dimensional requirements of instant claim 2 because where the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device is not patentably distinct from the prior art device, In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984).

7. Claims 8, 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mendel (US 5,401,454) in view of Phipps (US 4,364,722).

Mendel (US 5,401,454) discloses the die substantially as claimed, as mentioned above, except for the temperature regulator means of the forming members.

Phipps (US 4,364,722) discloses a die including a forming device composed of plate members 14, the plate members 14 composed of a heat cooling jacket 84 in which a heat cooling medium circulates.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the forming device of Mendel (US 5,401,454) with the forming device of Phipps (US 4,364,722) because Mendel (US 5,401,454: col. 4, lines

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33-38) explicitly discloses that further construction of the forming device is disclosed by Phipps (US 4,364,722).

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mendel (US 5,401,454) in view of Phipps (US 4,364,722) as applied to claims 8, 12, 13 and 15 above, and further in view of Kitayama et al. (US 6,520,759).

Kitayama et al. (US 6,520,759) discloses a die including a forming device composed of plate members, wherein a contact surface of the plate members defining the channel is coated with a fluoro-resin to make sliding of the extruded product smoother to prevent scarring thereof (i.e., col. 9, line 58, to col. 10, line 39).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the forming device of Mendel (US 5,401,454) with fluoro-resin coating because such a modification is well known and conventional in the art as disclosed by Kitayama et al. (US 6,520,759) and would make sliding of the extruded product smoother to prevent scarring thereof.

Response to Arguments

9. Applicant's arguments with respect to the instant claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Behrens (US 6,474,966) is the English equivalent to WO 99/65666. Reifenhäuser et al. (US 3,647,329) and Walton (US 3,694,120) are cited as of interest to show the state of the art.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Leyson whose telephone number is (571) 272-5061. The examiner can normally be reached on M-F 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert Davis/
Primary Examiner
Art Unit 1791
October 1, 2007



JL